REMARKS

In accordance with the foregoing, claims 39 and 40 have been cancelled and claims 1, 9, 33, and 38 have been amended. No new matter is being presented, and approval and entry are respectfully requested. Claims 1, 2, 4-7, 9, 10, 12-15, 17-23, 25-29, 31-38 and 41 are pending and under consideration. Reconsideration is respectfully requested.

DOUBLE PATENTING:

Claims 39, 20-23, and 27-29 are objected to duplication of claims 1, 4-7, and 13-15, respectively.

Claim 39 has been cancelled without prejudice or disclaimer.

An aspect of present application discloses [0015] according to one aspect, both the wireless LAN printer and the printing clients operate within the IEEE 802.11b standard.

Paragraph [0015] of the present application is an example but it is not a limitation and the present application does not limit "wireless Local Area Network printer is only operable within the IEEE 802.11b standard.

Thus, it is respectfully submitted that the objection to claims 20-23, and 27-29 be resolved, and similarly objection to claim 25 also be resolved.

OBJECTION TO CLAIM 38:

Claim 38 is objected to being insufficient antecedent basis.

Claim 38 has been amended taking the examiner's comments into consideration.

Thus, it is respectfully submitted that the objection to the claim 38 be resoloved.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 1, 2, 4-7, 9, 10, 12-15, 17-23, 25-29, and 31-41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohta (U.S. Patent No. 6,980,319) and Torikai (Japanese Publication No. 10-091375) and Mazzagatte et al. (U.S. Patent No 7,454,796) further in view of Berkema et al. (U.S. Published Patent Application No. 2003/0002073).

Claim 1 has been amended to recite "monitoring the number and the traffic of the at least one printing client that is associated with the Basic Service Set, and rearranging the association of the at least one printing client to diffuse the traffic of the Basic Service Set..."

None of cited references discloses, teach and/or suggest the invention as recited in claim 1.

Claim 1 also recites "extracting information from a Media Access Control frame of the at least one printing client that is associated with a Basic Service Set, which includes the wireless LAN printer as a master of the Basic Service Set, the extracted information being information specifying whether the at least one printing client is authenticated to receive services of the wireless LAN printer ..."

The Office Action acknowledges that Ohta does not disclose the features discussed above.

Torikai discusses "this network printer is equipped with an order control means 100 which extracts a transmission destination MAC address from a print request packet, acquires the priority corresponding to it from a priority table 6"(see abstract and table 6 of Torikai-emphasis added).

As noted above, Torikai is directly related to a transmission destination MAC address and priorities, but fails to disclose a "**extracting information** from a Media Access Control frame of the at least one printing client that is associated with a Basic Service Set, the extracted information being information specifying whether the at least **one printing client is authenticated to receive services of the wireless LAN printer**" as recited in claim 1 since a "priority information " disclosed in Torikai is different from information on whether a printing client is authenticated.

Claim 1 also recites "...forming a list of the at least one printing client by using a Media Access Control address of the Media Access Control frame as an index, the list reflecting a state of the at least one printing client in relation to the wireless LAN printer..."

Further, Torikai states that a network printer "the priority corresponding to it from a priority table 6, and registers the MAC address of a corresponding host device in a queue table 11 according to the obtained priority.

As noted above, Torikai discusses a MAC address [for printing] in a queue table 11, but fails to disclose "the list reflecting a state of the at least one **printing client** in relation to the wireless LAN printer" as recited in claim 1. (emphasis added).

Claim 1 also recites "the extracted information being information specifying whether the at least one printing client is authenticated to receive services of the wireless LAN printer..."

Mezzagatte et al. discusses ""the term authenticated print job" means a print job that can only be printed out after the intended recipient has been authenticated. That is, an authenticated print job contains unique information of the intended recipient and is held of from being printed until the recipient has been authenticated at the printer. One the recipient has been authenticated, the authenticated print job is released for printing" (see col. 11, lines 40-46 of Mezzagatte et al.).

As noted above, Mezzagatte et al. discusses information of authenticate "print job" but falls to disclose "at least on printing client,[which means a device has a unique MAC address], is authenticated " as recited in claim 1.(emphasis added).

Claim 1 also recites "...wherein the list of the at least one printing client is restructured in real time according to a beacon signal..."

Berkema et al. discusses "[0022]In other program product embodiments, the program product may cause the print device to initiate a discovery process to identify client devices within operable range. By way of example, the program product may cause the print device to search out clients by broadcasting a beacon, broadcasting a printer profile, or the like; and recognizing an acknowledgement communicated by the client."(see paragraph[0022] of Berkema et al.).

As noted above, Berkema et al. is related to a discovery and identify client device within operable range of a print device, but this is different from "the list" based on at least one authenticated printing client recited in claim 1.

Claim 1 further recites "extracting information from a Media Access Control frame of the at least one printing client that is associated with a Basic Service Set, which includes the wireless LAN printer as a master of the Basic Service Set, the extracted information being information specifying whether the at least one printing client is authenticated to receive services of the wireless LAN printer..."

Berkema et al. discusses "[0026] Those knowledgeable in the art will understand that the wireless port 104 may take the particular form of any of a number of physical embodiments, with a wide variety of components commercially available and suitable for use with a print device of the invention. These commercial products may comprise embedded circuitry cards or chips in combination with antennae elements for connection to a printer device serial or USB port, or peripheral BUS card, or the like. Those knowledgeable in the art will likewise appreciate that the wireless port 104 may comprise a component to be integrated in the print device 102 during its manufacture, with a wide variety of such components commercially available. Likewise, components may of course be manufactured specifically for use with a print device 102 of the invention, with manufacture specifications available for example by reference to the Bluetooth or IEEE 802.11 standards."(see paragraph[0026] of Berkema et al.).

As noted above, Berkema et al. merely discusses manufacturing of print device by referencing Bluetooth or IEEE 802.11 standard, but fails to disclose "extracting information from a Media Access Control frame of the at least one printing client that is associated with a Basic Service Set, which includes the wireless LAN printer as a master of the Basic Service Set, the extracted information being information specifying whether the at least one printing client is authenticated to receive services of the wireless LAN printer..." as recited in claim 1.

Further, Berkema et al. merely discusses "additionally, even if these devices ahs the capacity to store more and larger data filed for printing , they may face disadvantages associated with speed and reliability of communicating relatively large data files to a printer" (see paragraph[0005], lines 13-16 of Berkema et al.).

As noted above, Berkema et al. is not related to "wherein the Basic Service Set, including the wireless LAN printer as the master, further includes the only printing clients authenticated to receive services of the wireless LAN printer to associate with the wireless LAN printer as other members of the Basic Service Set" as recited in claim 1.

Accordingly, it is respectfully submitted that the combination of Ohta, Torikai, Mazzagatte et al. (U.S. Patent No 7,454,796), and Berkema et al. does not teach or suggest the invention as recited in claim 1.

Claims 2, 4-7 and 19-23 depend from claim 1 and therefore, patentably distinguish over Ohta, Torikai, Mazzagatte et al. and Berkema et al. for at least the same reasons as discussed above with respect claim 1, as well as for the additional recitations therein.

For example, claim 2 recites "wherein the wireless Local Area Network printer and the at least one printing client operate within the IEEE 802.11b standard."

Ohta discusses "In general, except for the portable digital device 11, all of the above components of the remote printing system are connected physically as well as wirelessly to a cable network 15. One example of the wireless communication protocols is "BlueTooth." The portable digital devices 11 include a cellular phone, a note-size computer and a personal digital assistant (PDA). The portable digital device 11_1 is wirelessly connected to the network 15 via a wireless communication unit 11_1 and the access point 16."(see col. 4, lines 45-53 of Ohta).

As noted above, nothing cited or found in Ohta discloses that the wireless communication protocol is IEEE 802.11b. Thus, Ohta fails to disclose "wherein the wireless Local Area Network printer and the at least one printing client operate within the IEEE 802.11b standard" as recited in claim 2. Similarly, nothing cited or found in Torikai, Mazzagatte et al., or Berkema et al. discloses this feature.

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Berkema et al. does not teach or suggest the invention as recited in claim 2.

In addition, claim 4 recites "wherein the list of the at least one printing client denotes state of the at least one printing client in relation to the wireless Local Area Network printer and includes fields for at least one of synchronization and association."

The Office Action acknowledged that Ohta and Torikai fail to disclose this feature of claim 4. To compensate for this deficiency, the Office Action alleged that Mazzagatte et al. discloses this feature.

However, as discussed above, Mazzagatte et al. relates to an authenticated recipient, not an authenticated printing client. Furthermore, nothing cited or found in Mazzagatte et al. discloses a list of printing clients, much less that such a list "includes fields for at least one of synchronization and association" as recited by claim 4.

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Berkema et al. does not teach or suggest the invention as recited in claim 4.

Furthermore, claim 5 recites "The method according to claim 1, wherein the list of the at least one printing client includes fields specifying whether each printing client is allowed to associate with the wireless Local Area Network printer."

The Office Action acknowledged that Ohta and Torikai fail to disclose this feature of claim 5. To compensate for this deficiency of Ohta and Torikai, the Office Action alleged that Mazzagatte et al. discloses this feature.

However, the cited portion of Mazzagatte et al. merely states "as shown in FIG. 5, one or more sending nodes 510 such as computer 10, a print server 540 such as server 40, and at least one printing device 550 such as printer 50, communicate via a network 500" (see col. 11, lines 52-55 of Mazzagatte et al.). Applicant submits that merely associating one or more devices via a network does not imply a list of such devices or that such a list inherently includes any particular fields. The Office Action does not articulate any reasoning for why such features would be appreciated by one of ordinary skill in the art from the cited portions of Mazzagatte et al.

Furthermore, nothing cited or found elsewhere in Mazzagatte et al. discloses "the list of the at least one printing client" much less that such a list "includes fields specifying whether each printing client is allowed to associate with the wireless Local Area Network printer" as recited by claim 5.

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Berkema et al. does not teach or suggest the invention as recited in claim 5.

In addition, claim 7 recites "The method according to claim 1, wherein the list of the at least one printing client includes fields denoting whether specific functions of the wireless Local Area Network printer are usable by the at least one printing client."

Ohta states "[t]he print stations 12A, 12B and 12C each have a corresponding wireless communication unit 12A1, 12B1 or 12C1 to wirelessly as well as directly via the cable network 15 communicate with the portable digital device 11" (see col. 4, lines 55-59 of Ohta). Applicant submits that merely connecting one or more devices via a network does not imply a list of such devices or that such a list inherently includes any particular fields. The Office Action does not articulate any reasoning for why such features would be appreciated by one of ordinary skill in the art from the cited portions of Ohta.

Furthermore, nothing cited or found elsewhere in Ohta discloses "the list of the at least one printing client" much less that such a list "includes fields denoting whether specific functions of the wireless Local Area Network printer are usable by the at least one printing client" as recited by claim 7.

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Berkema et al. does not teach or suggest the invention as recited in claim 7.

Claim 9 has been amended to recite "wherein the wireless LAN printer is associated to the Basic Service Set through a printer management server, and the printer management server monitors the number and the traffic of the at least one printing client that is associated with the Basic Service Set, and arranges the association of the at least one printing client to diffuse the traffic of the Basic Service Set."

None of cited references discloses, teach and/or suggest the invention as recited in claim 9.

In addition, claim 9 recites

> an extraction unit to extract information from a Media Access Control frame of the at least one printing client that is associated with a Basic Service Set, which includes the wireless LAN printer, the extracted information being information specifying whether the at least one printing client is authenticated to receive services of the wireless LAN printer;

and

> a management unit to manage printing operations of the at least one printing client according to the list by permitting only printing clients authenticated to receive services of the wireless LAN printer to associate with the wireless LAN printer,
>
> wherein the list of the at least one printing client is restructured in real time according to a beacon signal, and the list is updated when a state of the at least one printing client changes,

and therefore, claim 9 patentably distinguishes over Ohta, Torikai, Mazzagatte et al., and Berkema et al. for at least reasons similar to those discussed above with respect to claim 1.

Claims 10, 12-15, 17, 18, 25-31, 35-38 and 41 depend from claim 9 and therefore, patentably distinguish over Ohta, Torikai, Mazzagatte et al. and Berkema et al. for at least the same reasons as discussed above with respect claim 9, as well as for the additional recitations therein.

For example, claim 10 recites "wherein the wireless Local Area Network printer and the at least one printing client operate within the IEEE 802.11b standard" and therefore, patentably distinguishes over Ohta, Torikai, Mazzagatte et al. and Berkema et al. for at least reasons similar to those discussed above with respect to claim 2.

Furthermore, claim 12 recites "wherein the list denotes a state of the at least one printing client in relation to the wireless Local Area Network printer and includes fields for at least one of synchronization and association" and therefore, patentably distinguishes over Ohta, Torikai, Mazzagatte et al., and Berkema et al. for at least reasons similar to those discussed above with respect to claim 4.

In addition, claim 13 recites "wherein the list of the at least one printing client includes fields specifying whether each printing client is allowed to associate with the wireless Local Area Network printer" and therefore, patentably distinguishes over Ohta, Torikai, Mazzagatte et al. and Berkema et al. for at least reasons similar to those discussed above with respect to claim 5.

Furthermore, claim 15 recites "wherein the list of the at least one printing client includes fields denoting whether specific functions of the wireless Local Area Network printer are usable by the at least one printing client" and therefore, patentably distinguishes over Ohta, Torikai, Mazzagatte et al. and Berkema et al. for at least reasons similar to those discussed above with respect to claim 7.

Claim 33 has been amended to recite "monitoring the number and the traffic of the at least one printing client that is associated with the Basic Service Set, and rearranging the association of the at least one printing client to diffuse the traffic of the Basic Service Set..."

None of cited references discloses, teach and/or suggest the invention as recited in claim 33.

In addition, claim 33 recites

> wherein the list of the at least one printing client is restructured in real time according to a beacon signal, and the list is updated when a state of the at least one printing client changes,

and therefore, claim 33 patentably distinguishes over Ohta, Torikai, Mazzagatte et al., and Berkema et al. for at least reasons similar to those discussed above with respect to claim 1.

Claim 34 depends from claim 33 and therefore, patentably distinguishes over Ohta, Torikai, Mazzagatte et al. and Berkema et al. for at least the same reasons as discussed above with respect claim 33, as well as for the additional recitations therein.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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